

Applicant: M. Kawaguchi
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wherein the moving means is configured and arranged so as to cause the support members to one of:

(a) move in one direction with respect to the long axis of each support member,

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at
(b) move in a direction generally perpendicular to the long axis of each support member,

(c) move in a direction generally perpendicular to the substrate end surface, or

(d) rotate about the long axis of each support member.

REMARKS

Applicant appreciates the Examiner's thorough examination of the subject application and requests reconsideration of the subject application based on the foregoing amendments and the following remarks.

Claims 1-17 are pending in the subject application. Claims 9-12 were withdrawn from consideration. Claims 1-8 and 13-17 stand rejected under 35 U.S.C. §102, 35 U.S.C. §103, and/or 35 U.S.C. 112, second paragraph.

Claims 1-2, and 17 were amended to more distinctly claim Applicant's invention. Claims 13-14, 16 and 17 were amended to address the Examiner's non-art based rejections. The amendments to the claims are supported by the originally filed disclosure.

Included herewith is a marked-up version of the amendments to the subject application by the current amendment. The marked-up versions are found on the

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pages captioned or entitled "Details of Amendments" that follow the signature page of the within Response.

35 U.S.C. §112, SECOND PARAGRAPH REJECTIONS

Claims 13-14, 16 and 17 stand rejected under 35 U.S.C. §112, second paragraph on the grounds that there are a number of antecedent basis/vagueness concerns in the identified claims. Although Applicant believes that the claims as written satisfy the requirements of §112, in the interests of advancing prosecution, and as provided above, claims 13-14, 16 and 17 were amended to address the concerns specifically identified by the Examiner. Applicant believes that the areas of concern have been identified and addressed in the foregoing amendment.

Accordingly, it is respectfully submitted that claims 13-14, 16 and 17 satisfy the requirements of 35 U.S.C. 112 and, as such, are in a condition for allowance.

35 U.S.C. §102 & §103 REJECTIONS

Claims 1-8 and 13-17 stand rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103 as being unpatentable over Mears et al. [USP 5,040,484; "Mears"]. Applicant respectfully traverses as discussed below. Because claims were amended in the foregoing amendment, the following discussion refers to the language of the amended claim. However, only those amended features specifically relied upon to distinguish the claimed invention from the cited prior art shall be considered as being made to overcome the cited reference.

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In the grounds for rejection, the Office Action acknowledges Applicant's prior arguments, but also indicates that the claims of the present invention do not exclude the presence of support members on all sides of the substrate. The Office Action also indicates that the claims of the present invention do not exclude the use of support members as clamp members. As such, Applicant has amended each of claims 1, 2 and 17 to make clear that the plurality of support members of the present invention are arranged on the substrate bearing surface so that they support only one end surface of the substrate, the end surface which faces down when the stage is vertical or substantially vertical.

As such, for the reasons already of record, Applicant respectfully submits that the as-amended claims are clearly distinguishable from the cited art, in both structure and function. It also is submitted that the cited reference includes **no** suggestion or teaching nor offer any motivation for modifying the apparatus disclosed in Mears so as to yield the substrate supporting mechanism of the present invention. Further, it is submitted that if the apparatus described in Mears was modified so as to yield the substrate supporting mechanism of the present invention, such a modification would destroy the intended purpose and function of the apparatus as disclosed in Mears.

As provided in MPEP-2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Or stated another way, "The identical invention must be shown in as complete detail as is contained in the ... claims. *Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ 2d. 1913, 1920 (Fed. Cir. 1989). Although identify of terminology is not

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required, the elements must be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990). It is clear from the foregoing remarks that the above identified claims are not anticipated by Mears.

As the Federal circuit has stated, "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. *Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.*, 73 F.2d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995). As indicated above, Mears does not suggest the desirability of the modification to the apparatus disclosed therein so as to yield the supporting mechanism and methodology claimed by Applicant.

As provided in MPEP 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F. 2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As provided above, Mears includes no such teaching, suggestion or motivation.

Also, and as provided in MPEP 2143.02, a prior art reference can be combined or modified to reject claims as obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Additionally, it also has been held that if the proposed modification or combination

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would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. Further, and as provided in MPEP-2143, the teaching or suggestion to make the claimed combination and the reasonable suggestion of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As can be seen from the forgoing discussion regarding the disclosure and teachings in Mears, there is no reasonable expectation of success provided in Mears that if the finger members in Mears were modified as taught by Applicant they would be reasonably successful in overcoming the problem described by Applicant. Also, it is clear from the foregoing discussion that the modification essentially required to the apparatus disclosed in Mears so as to yield the invention claimed by Applicant, would change the principle of operation of the apparatus disclosed in Mears.

As provided by the Federal circuit, a 35 U.S.C. §103 rejection based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in a reference, is not proper and the *prima facie* case of obviousness cannot be properly made. In short there would be no technological motivation for engaging in the modification or change. To the contrary, there would be a disincentive. *In re Gordon*, 733 F. 2d 900, 221 USPQ 1125 (Fed. Cir. 1984). In the present case it is clear that if the apparatus in Mears was modified so as to yield the invention claimed by Applicant, such a modification would destroy the intent, purpose or function of the device as taught by Mears.

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It is respectfully submitted that for the foregoing reasons, claims 1-8 and 13-17 are patentable over the cited reference and, therefore, satisfy the requirements of either of 35 U.S.C. §102 or 35 U.S.C. §103. As such, these claims are allowable.

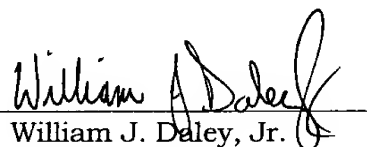
It is respectfully submitted that the subject application is in a condition for allowance. Early and favorable action is requested.

Applicant believes that additional fees are not required for consideration of the within Response. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,
EDWARDS & ANGELL, LLP

Date: April 25, 2003

By:


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DETAILS OF AMENDMENTS

Please amend the subject application as follows:

IN THE CLAIMS

Amend claim(s) 1-2, 13-14, 16 and 17 to read as follows:

1. (~~THR~~WICE AMENDED) A mechanism for supporting a substrate to be coated with ~~a the~~ film, which mechanism is used in a film forming apparatus, comprising:

a stage for receiving a substrate which has been transported into the film forming apparatus to form a film on the substrate;

a shaft member for angularly displacing the stage, that is bearing the substrate, from a substrate receiving position at which the stage received the substrate, to a film forming position at which a substrate bearing surface of the stage is vertical or substantially vertical;

a plurality of support members which are provided so as to protrude from the substrate bearing surface of the stage and ~~being arranged thereon~~ so as to support only one end surface of the substrate, where said one end surface is the surface which faces downwards when the stage is angularly displaced to the film forming position; and

moving means for moving the support members.

2. (~~TWICE~~ AMENDED) A mechanism for supporting a substrate to be coated with ~~a the~~ film, which mechanism is used in a film forming apparatus, comprising:

a stage for receiving a substrate which has been transported into the film forming apparatus to form a film on the substrate;

a shaft member for angularly displacing the stage, that is bearing the substrate, from a substrate receiving position at which the stage received the substrate, to a film forming position at which a substrate bearing surface of the stage is vertical or substantially vertical;

a plurality of support members which are provided so as to protrude from the substrate bearing surface of the stage, ~~for supporting and being arranged so as to support only one~~ an end surface of the substrate, ~~where said one end surface is the surface~~ which faces downwards, when the stage is angularly displaced to the film forming position;

moving means for moving the support members; and

wherein the moving means causes the support members to move in parallel in one direction of three dimensional directions on the stage or causes the support members to rotationally move on the stage.

13. (AMENDED) The mechanism for supporting a substrate to be coated with the film of claim 1, wherein each of the plurality of support members has a long axis that extends from the substrate bearing surface and wherein the moving means is configured and arranged so as to cause the support members to move in one direction with respect to a plane in which lies the long axis of each of the support members.

14. (AMENDED) The mechanism for supporting a substrate to be coated with the film of claim 1, wherein each of the plurality of support members has a long axis that extends from the substrate bearing surface and wherein the moving means is

configured and arranged so as to cause the support members to move in a direction generally perpendicular to a plane in which lies the long axis of each of the support members.

16. (AMENDED) The mechanism for supporting a substrate to be coated with the film of claim 1, wherein each of the plurality of support members has a long axis that extends from the substrate bearing surface and wherein the moving means is configured and arranged so as to cause each of the support members to rotate about the ~~a~~-long axis of each support member.

17. (AMENDED) A mechanism for supporting a substrate to be coated with the film, which mechanism is used in a film forming apparatus, comprising:

a stage for receiving a substrate which has been transported into the film forming apparatus to form a film on the substrate;

a shaft member for angularly displacing the stage, that is bearing the substrate, from a substrate receiving position at which the stage received the substrate, to a film forming position at which a substrate bearing surface of the stage is vertical or substantially vertical;

a plurality of support members which are provided so as to protrude from the substrate bearing surface of the stage and to support only one an end surface of the substrate, where said one end surface is the surface which faces downwards when the stage is angularly displaced to the film forming position, each of the plurality of support members having a long axis that extends from the substrate bearing surface;

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moving means for moving the support members; and

wherein the moving means is configured and arranged so as to cause the support members to one of:

(a) move in one direction with respect to ~~the a~~-long axis of ~~each the~~ support members,

(b) move in a direction generally perpendicular to ~~the a~~-long axis of ~~each the~~ support members,

(c) move in a direction generally perpendicular to the substrate end surface, or

(d) rotate about ~~the a~~-long axis of each support member.